BRUHATH BANGALORE MAHANAGARA PALIKE

Name of Work: Remodeling of SWD BP 026 (BY03) from BB Nagara, Kodigehalli to H-200 primary drain near Nagashettihalli main road in ward no.08, in Yelahanka Zone

Pre-Measurements

Item No	Description	Unit	No.	L	B	D	Qty.
1	Diversion of water course by providing Coffer dams or bunds or islands as may be necessary for piers and abutments foundations, bailing out or pumping water during excavation and until completion etc., including all lead and lift etc., complete as per the directions of Engineer in charge of work.						
	Date of Recording :						
	From Ch:747.60m to 717.60m	Cum	1	30.00	(1.85+1.90)/2	(1.90+1.80)/2	104.06
	From Ch:717.60m to 687.60m		1	30.00	(1.90+1.70)/2	(1.80+1.75)/2	95.85
	From Ch: 687.60m to 657.60m		1	30.00	(1.70+1.75)/2	(1.75+1.70)/2	89.26
	From Ch:657.60m to 627.60m		1	30.00	(1.75+1.70)/2	(1.70+1.70)/2	89.97
	From Ch:627.60m to 597.60m		1	30.00	(1.70+1.50)/2	(1.70+1.50)/2	76.80
	From Ch:597.60m to 590.60m		1	7.00	(1.50+1.00)/2	(1.50+1.00)/2	10.93
						Total Qty	466.87

AE/AWD/42
26/3/2015

Assistant Executive Engineer
Storm Water Drain Sub Division
Yelahanka zone,
Bruhat Bengaluru Mahanagara Palike

Item No	Description	Unit	No.	L	B	D	Qty.
3	Dismantling of existing structures like culverts, bridges retaining walls and other structure comprising of masonry, cement concrete, wood work, steel work including T & P and scaffolding wherever necessary sorting the dismantled material, disposal of unserviceable material and stacking the serviceable material with all lifts complete as per specifications.(Prestressed/reinforced cement concrete grade M20 and above)						
	Measurement Contd. on :						
	RCC Slab Ch: 595.00m to 605.7.00m	Cum	1	10.70	7.70	0.30	24.72
			1	6.00	4.00	0.30	7.20
		Cum				Total Qty	31.92

AE/SWD/42
27/3/2015

C & E
27/3/15
Assistant Executive Engr
Storm Water Drain Sub Div...
Yelahanka zone,
Bruhat Bengaluru Mahanagara Palike

Item No	Description	Unit	No.	L	B	D	Qty.
4	Dismantling of existing structures like culverts, bridges retaining walls and other structure comprising of masonry, cement concrete, wood work, steel work including T & P and scaffolding wherever necessary sorting the dismantled material, disposal of unserviceable material and stacking the serviceable material with all lifts and lead of 1000 metres complete as per specification.iii) Dismantling Stone Masonry. B.Rubble Stone masonry in cement mortar						
	Measurement Contd. on :						
	From Ch:747.60m to 717.60m	Cum	2	30.00	(0.45+0.60)/2	1.00	31.50
	From Ch:717.60m to 687.60m		2	30.00	(0.45+0.60)/2	1.00	31.50
	From Ch: 687.60m to 657.60m		2	30.00	(0.45+0.60)/2	1.00	31.50
	From Ch:657.60m to 627.60m		2	30.00	(0.45+0.60)/2	1.00	31.50
	From Ch:627.60m to 597.60m		2	30.00	(0.45+0.60)/2	1.00	31.50
	From Ch:597.60m to 590.60m		2	7.00	(0.45+0.60)/2	1.00	7.35
						Total Qty	164.85

AE/SWD/42
30/3/2015

30/3/15

Assistant Executive Engineer
Storm Water Drain Sub Division,
Yelahanka zone,
Bruhat Bengaluru Mahanagara Palike

Item No	Description	Unit	No.	L	B	D	Qty.
	Earth work in excavation for foundation of structures as per drawing and technical specifications, including setting out, construction of shoring and bracing, removal of stumps and other deleterious matter, dressing of sides and bottom and backfilling with approved material complete as per specifications. "V. Marshy soil - A.Manual Means upto 3 m depth . MORTH Specification						
	Measurement Contd. on :						
2	From Ch:747.60m to 717.60m	Cum	1	30.00	3.60	(0.60+0.70)/2	70.20
	From Ch:717.60m to 687.60m		1	30.00	3.60	(0.65+0.70)/2	72.90
	From Ch: 687.60m to 657.60m		1	30.00	3.60	(0.65+0.70)/2	72.90
	From Ch:657.60m to 627.60m		1	30.00	3.50	(0.70+0.65)/2	70.87
	From Ch:627.60m to 597.60m		1	30.00	3.20	(0.65+0.55)/2	57.60
	From Ch:597.60m to 590.60m		1	7.00	3.00	(0.55+0.50)/2	11.02
						Total Qty	355.49

AE/SWD/72
4/4/2015

04/04/15

Assistant Executive Engr.
Storm Water Drain Sub Div.
Yelahanka zone,
Bruhat Bengaluru Mahanagara Palike

Item No	Description	Unit	No.	L	B	D	Qty.
5	Dismantling of existing structures like culverts, bridges retaining walls and other structure comprising of masonry, cement concrete, wood work, steel work including T & P and scaffolding wherever necessary sorting the dismantled material, disposal of unserviceable material and stacking the serviceable material with all lifts and lead of 1000 metres complete as per specification.Cement concrete Grade M-15 & M-20						
	From Ch:747.60m to 717.60m	Cum	1	30.00	(3.40+3.50)/2	(0.25+0.20)/2	23.28
	From Ch:717.60m to 687.60m		1	30.00	(3.50+3.40)/2	(0.20+0.25)/2	23.28
	From Ch: 687.60m to 657.60m		1	30.00	(3.40+3.50)/2	(0.25+0.30)/2	28.46
	From Ch:657.60m to 627.60m		1	30.00	(3.50+3.40)/2	(0.30+0.25)/2	28.46
	From Ch:627.60m to 597.60m		1	30.00	(3.40+3.50)/2	(0.25+0.25)/2	25.87
	From Ch:597.60m to 590.60m		1	7.00	(3.50+3.00)/2	(0.25+0.25)/2	5.68
						Total Qty	135.03

AE/SWD/42
6/4/2015

6/04/15

Assistant Executive Engineer
Storm Water Drain Sub Division,
Yelahanka zone,
Bruhat Bengaluru Mahanagara Palike

Item No	Description	Unit	No.	L	B	D	Qty.
6	Earth work in excavation for foundation of structures as per drawing and technical specifications, including setting out, construction of shoring and bracing, removal of stumps and other deleterious matter, dressing of sides and bottom and backfilling with approved material complete as per specifications. B. Mechanical Means (i) Depth upto 3 m. MORTH Specification No.Section 304						
	Measurement Contd. on :						
	From Ch:747.60m to 717.60m	Cum	1	30.00	(5.60+5.40)/2	2.65	437.25
	From Ch:717.60m to 687.60m		1	30.00	5.50	(2.65+2.60)/2	433.12
	From Ch: 687.60m to 657.60m		1	30.00	(5.50+5.40)/2	2.60	425.10
	From Ch:657.60m to 627.60m		1	30.00	(5.60+5.70)/2	(2.60+2.45)/2	427.98
	From Ch:627.60m to 597.60m		1	30.00	(5.70+5.40)/2	(2.45+2.40)/2	403.76
	From Ch:597.60m to 590.60m		1	7.00	(5.40+5.30)/2	2.40	89.88
							2217.09
	Deduct existing drain		1	157.00	3.50	1.00	549.5
						Total Qty	**1667.59**

AE/SWD/42
9/4/2015

9/04/15

Assistant Executive Engi...
Storm Water Drain Sub Division,
Yelahanka zone,
Bruhat Bengaluru Mahanagara Palike

Item No	Description	Unit	No.	L	B	D	Qty.
7	Providing and Filling in foundation with granite/trap broken metal 100mm. and down size, with approved sand including hand packing, ramming, watering, including cost of all materials and labour with lead upto 50m and lift of 1.5m complete as per specifications						
	Measurement Contd. on :						
	From Ch:747.60m to 717.60m	Cum	1	30.00	(4.90+5.10)/2	(0.28+0.32)/2	45.00
	From Ch:717.60m to 687.60m		1	30.00	(5.10+5.00)/2	(0.32+0.28)/2	45.45
	From Ch: 687.60m to 657.60m		1	30.00	5.00	(0.28+0.32)/2	45.00
	From Ch:657.60m to 627.60m		1	30.00	(5.00+4.90)/2	(0.32+0.28)/2	44.55
	From Ch:627.60m to 597.60m		1	30.00	(4.90+5.10)/2	(0.28+0.32)/2	45.00
	From Ch:597.60m to 590.60m		1	7.00	(5.10+4.80)/2	(0.32+0.28)/2	10.39
						Total Qty	235.39

AE/SWD/42
13/4/2015

13/04/15

Assistant Executive Engineer
Storm Water Drain Sub Division,
Yelahanka zone,
Bruhat Bengaluru Mahanagara Palike

Item No	Description	Unit	No.	L	B	D	Qty.
8	Plain cement concrete M 10 with OPC cement @ 220 kgs with crushed 40m and down size graded grantie metal coarse aggregates @ 0.84 cum and fine aggregates @ 0.56 cum in foundation mechanically mixed, placed in foundation and compacted by vibration including curing for 14 days complete as per specifications						
	Measurement Contd. on :						
	From Ch:747.60m to 717.60m	Cum	1	30.00	(4.90+5.10)/2	(0.14+0.16)/2	22.50
	From Ch:717.60m to 687.60m		1	30.00	(5.10+5.00)/2	(0.16+0.14)/2	22.72
	From Ch: 687.60m to 657.60m		1	30.00	5.00	(0.14+0.16)/2	22.50
	From Ch:657.60m to 627.60m		1	30.00	(5.00+4.90)/2	(0.16+0.14)/2	22.27
	From Ch:627.60m to 597.60m		1	30.00	(4.90+5.10)/2	(0.14+0.16)/2	22.50
	From Ch:597.60m to 590.60m		1	7.00	(5.10+4.80)/2	(0.16+0.14)/2	5.19
						Total Qty	117.68

16/4/2015

16/04/15

Assistant Executive Engineer
Storm Water Drain Sub Division,
Yelahanka zone,
Bruhat Bengaluru Mahanagara Palike

Item No	Description	Unit	No.	L	B	D	Qty.
13	Supplying, fitting and placing TMT bar reinforcement in sub-structure as per drawing and Technical Specifications complete as per specifications.						

Sl.No	Item/Bar nor	Dia of bar	length in mtr	spacing	no of bars	total length	wt/m	total wt in Kgs	Remarks
a	**Ch:747.60m to 717.60m**								
	Raft width-4.90m			Wall Height-1.40m			Length-30.00 m		
	1	16	6.40	175 c/c	171	1094.40	1.58	1729.15	
	2	16	5.60	75 c/c	400	2240.00	1.58	3539.20	
	3&4	10	29.90	175 c/c	56	1674.40	0.62	1038.13	2x28
	5	10	1.60	175 c/c	684	1094.40	0.62	678.53	2x2x171
	6	16	3.05	175 c/c	342	1043.10	1.58	1648.10	2x171
	7	16	5.05	175 c/c	342	1727.10	1.58	2728.82	2x171
	8&9	10	29.90	175 c/c	32	956.80	0.62	593.22	2x2x8
								11955.14	
b	**From Ch:717.60m to 687.60m**								
	Raft width-4.90m			Wall Height-1.40m			Length-30.00 m		
	1	16	6.40	175 c/c	171	1094.40	1.58	1729.15	
	2	16	5.60	75 c/c	399	2234.40	1.58	3530.35	
	3&4	10	29.95	175 c/c	56	1677.20	0.62	1039.86	2x28
	5	10	1.60	175 c/c	684	1094.40	0.62	678.53	2x2x171
	6	16	3.05	175 c/c	342	1043.10	1.58	1648.10	2x171
	7	16	5.05	175 c/c	342	1727.10	1.58	2728.82	2x171
	8&9	10	29.95	175 c/c	32	958.40	0.62	594.21	2x2x8
								11949.02	
c	**From Ch: 687.60m to 657.60m**								
	Raft width-4.90m			Wall Height-1.40m			Length-30.00 m		
	1	16	6.40	175 c/c	170	1088.00	1.58	1719.04	
	2	16	5.60	75 c/c	401	2245.60	1.58	3548.05	
	3&4	10	29.90	175 c/c	56	1674.40	0.62	1038.13	2x28
	5	10	1.60	175 c/c	684	1094.40	0.62	678.53	2x2x171
	6	16	3.05	175 c/c	342	1043.10	1.58	1648.10	2x171
	7	16	5.05	175 c/c	342	1727.10	1.58	2728.82	2x171
	8&9	10	29.90	175 c/c	32	956.80	0.62	593.22	2x2x8
								11953.88	
d	**From Ch:657.60m to 627.60m**								
	Raft width-4.90m			Wall Height-1.40m			Length-30.00 m		
	1	16	6.40	175 c/c	171	1094.40	1.58	1729.15	
	2	16	5.60	75 c/c	400	2240.00	1.58	3539.20	
	3&4	10	29.90	175 c/c	56	1674.40	0.62	1038.13	2x28
	5	10	1.60	175 c/c	684	1094.40	0.62	678.53	2x2x171
	6	16	3.05	175 c/c	342	1043.10	1.58	1648.10	2x171
	7	16	5.05	175 c/c	342	1727.10	1.58	2728.82	2x171
	8&9	10	29.90	175 c/c	32	956.80	0.62	593.22	2x2x8
								11955.14	
e	**From Ch:597.60m to 590.60m**								
	Raft width-4.90m			Wall Height-1.40m			Length-30.00 m		
	1	16	6.40	175 c/c	171	1094.40	1.58	1729.15	
	2	16	5.60	75 c/c	399	2234.40	1.58	3530.35	
	3&4	10	29.90	175 c/c	56	1674.40	0.62	1038.13	2x28
	5	10	1.60	175 c/c	684	1094.40	0.62	678.53	2x2x171
	6	16	3.05	175 c/c	342	1043.10	1.58	1648.10	2x171
	7	16	5.05	175 c/c	342	1727.10	1.58	2728.82	2x171
	8&9	10	29.90	175 c/c	32	956.80	0.62	593.22	2x2x8
								11946.29	

AE/SWD/42
20/4/2015

C & E
20/04/15

AE/SWD/42
22/4/2015

C & E
22/04/15

Assistant Executive Engineer
Storm Water Drain Sub Division,
Yelahanka zone,
Bruhat Bengaluru Mahanagara Palike

Item No	Description	Unit	No.	L	B	D	Qty.		
g	From Ch:597.60m to 590.60m								
	Raft width-4.90			Wall Height-1.40m			Length-7.00 m		
	1	16	6.40	175 c/c	40	256.00	1.58	404.48	
	2	16	5.60	75 c/c	94	526.40	1.58	831.71	
	3&4	10	6.90	175 c/c	56	386.40	0.62	239.57	2x28
	5	10	1.60	175 c/c	160	256.00	0.62	158.72	2x2x40
	6	16	3.05	175 c/c	80	244.00	1.58	385.52	2x40
	7	16	5.05	175 c/c	80	404.00	1.58	638.32	2x40
	8&9	10	6.90	175 c/c	32	220.80	0.62	136.90	2x2x8
								2795.22	
								62554.68	62.55 MT

AE/SWD/42
23/4/2015

23/04/15

Assistant Executive Engineer
Storm Water Drain Sub Division
Yelahanka zone,
Bruhat Bengaluru Mahanagara Palike

Item No	Description	Unit	No.	L	B	D	Qty.
10	Plain / Reinforced Cement concrete in open foundation with OPC cement design mix M35 @ 390 kgs, with 20mm and down size graded granite metal coarse aggregates @ 0.68 cum and fine aggregates @ 0.45 cum with superplastisiser @ 3lts confirming to IS 9103-1999 Reaffirmed-2010complete as per drawing and technical specification. Case-II : With Batching Plant, Transit Mixer and Concrete Pump						
	Measurement Contd. on :						
	Raft	Cum					
	From Ch:747.60m to 717.60m		1	30.00	4.90	(0.48+0.50)/2	72.03
	From Ch:717.60m to 687.60m		1	30.00	4.90	(0.50+0.48)/2	72.03
	From Ch: 687.60m to 657.60m		1	30.00	4.90	(0.48+0.50)/2	72.03
	From Ch:657.60m to 627.60m		1	30.00	4.90	(0.50+0.48)/2	72.03
	From Ch:627.60m to 597.60m		1	30.00	4.90	(0.48+0.50)/2	72.03
	From Ch:597.60m to 590.60m		1	7.00	4.90	(0.50+0.48)/2	16.80
	Bottom Haunches		2x1/2	157.00	0.30	0.30	14.13
						Total Qty	391.08

AE/SWD/YZ
20/4/2015, 22/4/2015
& 23/4/2015

CEJE
23/04/15

Assistant Commissioner
Storm Water Drains
Yelahanka zone
Bruhat Bengaluru Mahanagara Palike

Item No	Description	Unit	No.	L	B	D	Qty.
11	Design mix M 35 with OPC cement @ 390kgs, with 20mm and down size graded granite metal coarse aggregates @ 0.68cum and fine aggregates @ 0.45 cum, with superplastisiser @ 3lts confirming to IS9103-1999 Reaffirmed-2008 i) upto 5m height						
	Measurement Contd. on :						
	Walls	Cum					
	From Ch:747.60m to 717.60m		2	30.00	(0.38+0.40)/2	1.40	32.76
	From Ch:717.60m to 687.60m		2	30.00	(0.40+0.38)/2	1.40	32.76
	From Ch: 687.60m to 657.60m		2	30.00	(0.38+0.40)/2	1.40	32.76
	From Ch:657.60m to 627.60m		2	30.00	(0.40+0.38)/2	1.40	32.76
	From Ch:627.60m to 597.60m		2	30.00	(0.38+0.40)/2	1.40	32.76
	From Ch:597.60m to 590.60m		2	7.00	(0.40+0.38)/2	1.40	7.64
	Top Haunches		2x1/2	157.00	0.30	0.30	14.13
						Total Qty	**185.57**

AE/SWD/42
24/4/15 & 27/4/2015

24/4/15 & 27/4/15

Assistant Executive Engineer
Storm Water Drain Sub Division,
Yelahanka zone,
Bruhat Bengaluru Mahanagara Palike

Item No	Description	Unit	No.	L	B	D	Qty.
14	Supplying, fitting and placing TMT bar reinforcement in super-structure complete as per drawing and technical specifications complete as per specifications.						

Sl.No	Item/Bar nor	Dia of bar	length in mtr	spacing	no of bars	total length	wt/m	total wt in Kgs	Remarks
a	From Ch:747.60m to 723.60m								
	Deck width - 4.50 m						Length - 24.00 m		
	10	16	5.00	75 c/c	301	1505	1.58	2377.90	
	11	16	6.40	175 c/c	130	832	1.58	1314.56	
	12	10	23.95	175 c/c	19	455.05	0.62	282.131	
	13	10	23.95	175 c/c	19	455.05	0.62	282.131	
	12	10	22.75	175 c/c	7	159.25	0.62	98.735	
	13	10	22.75	175 c/c	7	159.25	0.62	98.735	
		16	2.5	75 c/c	20	50	1.58	79	Bottom rods for desilt opening
		16	1.4	75 c/c	20	28	1.58	44.24	Bottom rods for desilt opening
		16	3.25	150 c/c	10	32.5	1.58	51.35	Top rods for desilt opening
		16	2.15	150 c/c	10	21.5	1.58	33.97	Top rods for desilt opening
		16	1.00	75 c/c	2x20=40	40	1.58	63.2	Extra rods
		10	3.00	150 c/c	14	42	0.62	26.04	Links
		12	1.7	150 c/c	2x10=20	34	0.89	30.26	for cover slab
		12	1.2	150 c/c	2x11=22	26.4	0.89	23.496	Distributio n rods for cover slab
								4805.75	

AE/SWD/Yz

Assistant Executive Engineer
Storm Water Drain Sub Division,
Yelahanka zone,
Bruhat Bengaluru Mahanagara Palike

Item No.	Description	Unit	No.	L	B	D	Qty.		
b	From Ch:723.60m to 699.60m								
	Deck width - 4.50 m						Length - 24.00 m		
	10	16	5.00	75 c/c	301	1505.00	1.58	2377.90	
	11	16	6.40	175 c/c	129	825.60	1.58	1304.45	
	12	10	23.95	175 c/c	19	455.05	0.62	282.13	
	13	10	23.95	175 c/c	19	455.05	0.62	282.13	
	12	10	22.75	175 c/c	7	159.25	0.62	98.74	
	13	10	22.75	175 c/c	7	159.25	0.62	98.74	
		16	2.5	75 c/c	20	50	1.58	79	Bottom rods for desilt opening
		16	1.4	75 c/c	20	28	1.58	44.24	Bottom rods for desilt opening
		16	3.25	150 c/c	10	32.5	1.58	51.35	Top rods for desilt opening
		16	2.15	150 c/c	10	21.5	1.58	33.97	Top rods for desilt opening
		16	1	75 c/c	2x20=40	40	1.58	63.2	Extra rods
		10	3	150 c/c	14	42	0.62	26.04	Links
		12	1.7	150 c/c	2x10=20	34	0.89	30.26	for cover slab
		12	1.2	150 c/c	2x11=22	26.4	0.89	23.496	Distributio n rods for cover slab
								4795.64	
c	From Ch:699.60m to 675.60m								
	Deck width - 4.50 m						Length - 24.00 m		
	10	16	5.00	75 c/c	300	1500	1.58	2370.00	
	11	16	6.40	175 c/c	130	832	1.58	1314.56	
	12	10	23.95	175 c/c	19	455.05	0.62	282.131	
	13	10	23.95	175 c/c	19	455.05	0.62	282.131	
	12	10	22.75	175 c/c	7	159.25	0.62	98.735	
	13	10	22.75	175 c/c	7	159.25	0.62	98.735	
		16	2.5	75 c/c	20	50	1.58	79	Bottom rods for desilt opening
		16	1.4	75 c/c	20	28	1.58	44.24	Bottom rods for desilt opening
		16	3.25	150 c/c	10	32.5	1.58	51.35	Top rods for desilt opening
		16	2.15	150 c/c	10	21.5	1.58	33.97	Top rods for desilt opening
		16	1.00	75 c/c	2x20=40	40	1.58	63.2	Extra rods
		10	3.00	150 c/c	14	42	0.62	26.04	Links
		12	1.7	150 c/c	2x10=20	34	0.89	30.26	for cover slab
		12	1.2	150 c/c	2x11=22	26.4	0.89	23.496	Distributio n rods for cover slab
								4797.85	
d	From Ch:675.60m to 651.60m								
	Deck width - 4.50 m						Length - 24.00 m		
	10	16	5.00	75 c/c	301	1505.00	1.58	2377.90	
	11	16	6.40	175 c/c	129	825.60	1.58	1304.45	
	12	10	23.95	175 c/c	19	455.05	0.62	282.13	
	13	10	23.95	175 c/c	19	455.05	0.62	282.13	

Item No.	Description	Unit	No.	L	B	D	Qty.		
	12	10	22.75	175 c/c	7	159.25	0.62	98.74	
	13	10	22.75	175 c/c	7	159.25	0.62	98.74	
		16	2.5	75 c/c	20	50	1.58	79	Bottom rods for desilt opening
		16	1.4	75 c/c	20	28	1.58	44.24	Bottom rods for desilt opening
		16	3.25	150 c/c	10	32.5	1.58	51.35	Top rods for desilt opening
		16	2.15	150 c/c	10	21.5	1.58	33.97	Top rods for desilt opening
		16	1	75 c/c	2x20=40	40	1.58	63.2	Extra rods
		10	3	150 c/c	14	42	0.62	26.04	Links
		12	1.7	150 c/c	2x10=20	34	0.89	30.26	for cover slab
		12	1.2	150 c/c	2x11=22	26.4	0.89	23.496	Distributio n rods for cover slab
								4795.64	
e	From Ch:651.60m to 627.60m								
	Deck width - 4.50 m						Length - 24.00 m		
	10	16	5.00	75 c/c	300	1500	1.58	2370.00	
	11	16	6.40	175 c/c	130	832	1.58	1314.56	
	12	10	23.95	175 c/c	19	455.05	0.62	282.131	
	13	10	23.95	175 c/c	19	455.05	0.62	282.131	
	12	10	22.75	175 c/c	7	159.25	0.62	98.735	
	13	10	22.75	175 c/c	7	159.25	0.62	98.735	
		16	2.5	75 c/c	20	50	1.58	79	Bottom rods for desilt opening
		16	1.4	75 c/c	20	28	1.58	44.24	Bottom rods for desilt opening
		16	3.25	150 c/c	10	32.5	1.58	51.35	Top rods for desilt opening
		16	2.15	150 c/c	10	21.5	1.58	33.97	Top rods for desilt opening
		16	1.00	75 c/c	2x20=40	40	1.58	63.2	Extra rods
		10	3.00	150 c/c	14	42	0.62	26.04	Links
		12	1.7	150 c/c	2x10=20	34	0.89	30.26	for cover slab
		12	1.2	150 c/c	2x11=22	26.4	0.89	23.496	Distributio n rods for cover slab
								4797.85	
f	From Ch:627.60m to 605.60m								
	Deck width - 4.50 m						Length - 18.00 m		
	10	16	5.00	75 c/c	221	1105.00	1.58	1745.90	
	11	16	6.40	175 c/c	93	595.20	1.58	940.42	
	12	10	17.95	175 c/c	19	341.05	0.62	211.45	
	13	10	17.95	175 c/c	19	341.05	0.62	211.45	
	12	10	16.75	175 c/c	7	117.25	0.62	72.70	
	13	10	16.75	175 c/c	7	117.25	0.62	72.70	
		16	2.5	75 c/c	20	50	1.58	79	Bottom rods for desilt opening

Assistant Executive Engineer
Storm Water Drain Sub Division,
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Item No	Description	Unit	No.	L	B	D	Qty.		
		16	1.4	75 c/c	20	28	1.58	44.24	Bottom rods for desilt opening
		16	3.25	150 c/c	10	32.5	1.58	51.35	Top rods for desilt opening
		16	2.15	150 c/c	10	21.5	1.58	33.97	Top rods for desilt opening
		16	1	75 c/c	2x20=40	40	1.58	63.2	Extra rods
		10	3	150 c/c	14	42	0.62	26.04	Links
		12	1.7	150 c/c	2x10=20	34	0.89	30.26	for cover slab
		12	1.2	150 c/c	2x11=22	26.4	0.89	23.496	Distributio n rods for cover slab
								3606.16	
g	From Ch:605.60m to 590.60m								
	Deck width - 4.50 m						Length - 19.00 m		
		20	5.00	75 c/c	254	1270.00	2.47	3136.90	Bottom rods for Bridge portion
	11	16	6.40	175 c/c	109	697.60	1.58	1102.21	
	12	10	18.95	175 c/c	25	473.75	0.62	293.73	
	13	10	18.95	175 c/c	25	473.75	0.62	293.73	
	Bracket to rest approach slab	12	2.30	125 c/c	304	699.20	0.89	622.29	2x152
	Distribution for bracket	12	18.95	175 c/c	10	189.50	0.89	168.66	2x5
	Rings for bracket	10	1.65		184	303.60	0.62	188.23	2x92
		10	1.40		184	257.60	0.62	159.71	2x92
	Cable duct/Utility crossing	12	1.30	175 c/c	27	35.10	0.89	31.24	
		12	1.80	175 c/c	27	48.60	0.89	43.25	
	Distribution for Cable duct	12	4.80	175 c/c	10	48.00	0.89	42.72	2x5
	Parapet wall	12	2.90	175 c/c	28	81.20	0.89	72.27	
	Distribution for Parapet wall	12	4.80	175 c/c	12	57.60	0.89	51.26	2x6
								6206.19	
								33805.07	**33.80 MT**

W/ AE(WD)/Y2 29/4/2015, 30/4/2015 & 2/5/2015

C Cash Sum 29/4, 30/4, 2/5

Assistant Executive Engineer
Storm Water Drain Sub Division,
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Item No	Description	Unit	No.	L	B	D	Qty.
12	Furnishing and Placing Reinforced / Prestressed cement concrete in super-structure as per drawing and Technical Specification complete as per specifications. D.RCC/PSC with OPC cement design mix M35 @ 390kgs, with 20mm and down size graded granite metal coarse aggregates @ 0.68cum and fine aggregates @ 0.45cum, with superplastisiser @ 3lts confirming to IS9103-1999 Reaffirmed-2008. Case-II : Using Batching plant, Transit mixer &						
	Measurement Contd. on :						
	Deck slab	Cum					
	From Ch:747.60m to 723.60m		1	24.00	4.50	(0.44+0.45)/2	48.06
	From Ch:723.60m to 699.60m		1	24.00	4.50	(0.45+0.44)/2	48.06
	From Ch:699.60m to 675.60m		1	24.00	4.50	(0.44+0.45)/2	48.06
	From Ch:675.60m to 651.60m		1	24.00	4.50	(0.45+0.44)/2	48.06
	From Ch:651.60m to 627.60m		1	24.00	4.50	(0.44+0.45)/2	48.06
	From Ch:627.60m to 605.60m		1	18.00	4.50	(0.45+0.44)/2	36.05
	From Ch:605.60m to 590.60m		1	19.00	4.50	(0.44+0.45)/2	38.05
	Cover slabs		12	1.50	0.60	0.25	2.70
	Parapet wall		1	4.85	(0.40+0.20)/2	1.20	1.74
			1	4.85	0.90	0.15	0.65
	Utility crossing/utility crossing		1	4.85	0.30	0.20	0.29
	Bracket to rest approach slab		2	19.30	(0.20+0.25)/2	(0.30+0.25)/2	2.38
						Total Qty	**322.16**
	Deduct for openings						
	Openings		6	1.20	1.20	0.20	1.73
			6	1.50	1.20	0.25	2.70
							4.43
						Net Qty	**317.73**

AE/EE 29/4/15, 30/4/15 & 2/5/15

29/04/15, 30/04/15, 02/05/15

Assistant Executive Engineer
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Bruhat Bengaluru Mahanagara Palike

Item No	Description	Unit	No.	L	B	D	Qty.
15	Providing 90mm dia PVC pipes 10 KSC) for wall 0.40 mtr pipe						
	Measurement Contd. on :						
	From Ch:747.60m to 717.60m	Rmt	65		0.40	26.00	26.00
	From Ch:717.60m to 687.60m		60		0.40	24.00	24.00
	From Ch: 687.60m to 657.60m		63		0.40	25.20	25.20
	From Ch:657.60m to 627.60m		60		0.40	24.00	24.00
	From Ch:627.60m to 597.60m		60		0.40	24.00	24.00
	From Ch:597.60m to 590.60m		15		0.40	6.00	6.00
						Total Qty	**129.20**

AE/SWD/42
4/5/2015

C&R
2nd
04/05/15

Assistant Executive Engineer
Storm Water Drain Sub Division,
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Bruhat Bengaluru Mahanagara Palike

Item No	Description	Unit	No.	L	B	D	Qty.
22	Collecting, conveying and disposal of surplus / excavated earth to designated dupmping site (15.00 kms) as directed by the Engineer in charge.						
	Measurement Contd. on :						
	Total quantity excavated (50%of I No - 6)	Cum		1667.59x0.5=833.79			833.79
						Total Qty	833.79

For the Above work Bill has been prepared in the MB No. 856/13-14, Page No:

27/5/2015

Assistant Engineer
SWD, Yelahanka Zone
BBMP, Bangalore

07/05/15

Asst Executive Engineer
SWD,Yelahanka Zone,
BBMP, Bangalore

Assistant Executive Engineer, Storm Water Drain Division, Yelahanka zone, Bruhat Bengaluru Mahanagara Palike